

PROGNOSTIC DISCUSSION FOR LONG-LEAD OUTLOOKS
 CLIMATE PREDICTION CENTER NCEP
 NATIONAL WEATHER SERVICE WASHINGTON DC
 3 PM EST THURSDAY JANUARY 13 2000

PROGNOSTIC DISCUSSION OF SST FORECASTS

CURRENT CONDITIONS IN THE EAST-CENTRAL EQUATORIAL PACIFIC (120-170W LONGITUDE AND 5S TO 5N - ALSO CALLED NINO 3.4) INDICATE THAT A MODERATE TO STRONG LA NINA CONTINUES. SST ANOMALIES IN THE NINO 3.4 AREA CURRENTLY AVERAGE AROUND -1.7 CENTIGRADE DEGREES AND HAVE STRENGTHENED IN THE PAST MONTH. ANOMALIES OF AT LEAST -2 C STRADDLE THE EQUATOR AND EXTEND FROM THE COAST OF SOUTH AMERICA WESTWARD TO ABOUT 170W - WHILE ANOMALIES OF -1 C EXTEND TO ABOUT 170E. THE TRADE WINDS CONTINUE AT ABOVE AVERAGE STRENGTH OVER MOST OF THE WESTERN AND CENTRAL PACIFIC - AND AT NEAR NORMAL STRENGTH OVER THE EASTERN PACIFIC OCEAN. THERE IS STILL A SUBSTANTIAL AMOUNT OF COLDER THAN NORMAL SUB-SURFACE WATER BETWEEN THE DATE LINE AND 90W TO MAINTAIN LA NINA CONDITIONS THROUGH SPRING OF 2000. CURRENT CONDITIONS IN THE TROPICAL PACIFIC ARE COMPARABLE TO THOSE OBSERVED ONE YEAR AGO.

ALL MODEL FORECASTS WERE AVAILABLE - INCLUDING A DYNAMICAL FORECAST FROM THE ATMOSPHERIC COMPONENT OF THE NCEP COUPLED MODEL. A NEW DYNAMICAL OCEAN FORECAST FROM THE COUPLED MODEL AND THE CCA PREDICT THAT SSTs IN THE NINO 3.4 REGION WILL REMAIN BELOW NORMAL THROUGH AT LEAST APRIL OR PROBABLY MAY OF 2000. THESE TWO MODELS PREDICT THAT PACIFIC SST ANOMALIES WILL REACH ZERO BY ABOUT JUNE. CCA THEN PREDICTS A CLIMB TO ABOUT 1 C BY SEPTEMBER. THE CONSTRUCTED ANALOG (CA) SST FORECAST PREDICTS A RETURN TO ZERO ANOMALY BY AUGUST WITH TEMPERATURES REMAINING CLOSE TO ZERO THROUGHOUT THE FIRST HALF OF NEXT WINTER. THE VARIOUS METHODS PREDICT AVERAGE ANOMALIES BETWEEN -1.1 C AND -2 C FOR JFM 2000. ALL MODELS FORECAST A WEAKENING OF THE NEGATIVE ANOMALIES BETWEEN LATE WINTER AND LATE SPRING 2000. A CONSOLIDATED FORECAST BASED ON THE PAST PERFORMANCE OF ALL THREE SST MODELS PREDICTS SSTs OF -1.9 C FOR FMA EVENTUALLY WARMING TO NEAR ZERO ANOMALY BY JUNE 2000.

PROGNOSTIC DISCUSSION OF OUTLOOKS - FMA 2000 TO FMA 2001

THE FORECASTS FOR FMA 2000 AND AMJ 2000 ARE BASED LARGELY ON A COMBINATION OF THE NCEP COUPLED MODEL - PAST HISTORICAL DISTRIBUTIONS OF U.S. T AND P ASSOCIATED WITH MODERATE TO STRONG LA NINA CONDITIONS - AND THE CCA. ALL MODELS AGREE THAT MOST OF THE CLASSIC LA NINA TEMPERATURE AND PRECIPITATION PATTERNS ARE LIKELY. THE DYNAMICAL MODEL INDICATES A NORTHWARD SHIFT IN THE LA NINA PATTERN OF TEMPERATURE AND PRECIPITATION. THIS WOULD MEAN MORE WARMTH AND DRYNESS - FARTHER TO THE NORTH THAN IN THE CLASSIC LA NINA. OUR FORECASTS REFLECT THIS OVERALL TENDENCY - SHOWING LARGER AREAS OF ABOVE NORMAL TEMPERATURE AND SUB-MEDIAN PRECIPITATION. THIS FORECAST IMPLIES THAT ONGOING DRYNESS OVER THE SOUTHERN U.S. - PARTS OF THE WEST - THE GREAT PLAINS AND THE MIDWEST - SEEMS LIKELY TO CONTINUE OR WORSEN - DESPITE A CANONICAL LA NINA SIGNAL FOR ENHANCED PRECIPITATION IN THE OHIO VALLEY. THE FORECASTS ARE ADJUSTED TO ACCOUNT FOR TEMPERATURE AND PRECIPITATION TRENDS BOTH AS INDICATED BY OCN - AND ALSO AS INDICATED FROM A 30-YEAR LINEAR FIT TO CONSIDER LONGER CLIMATE TRENDS.

IN THE ABSENCE OF A CONFIDENT FORECAST OF THE STATE OF ENSO AT LONGER LEADS - FORECASTS FOR MJJ 2000 AND BEYOND ARE BASED MAINLY ON CCA AND OCN IN THE LOWER 48 STATES. LA NINA COMPOSITES COMBINED WITH OCN WERE USED - ALONG WITH DYNAMICAL MODELS - FOR ALASKA OUT TO AMJ - THEREAFTER REGRESSION IS USED.

SIGNIFICANT CHANGES IN THE FORECASTS FROM LAST MONTHS SET:

FOR FMA - EXPECTED EXCESS WARMTH IS PUSHED NORTHWARD INTO MONTANA AND EASTWARD ACROSS THE SOUTHEAST. SUB-MEDIAN PRECIPITATION IS EXPANDED EASTWARD INTO ILLINOIS AND NORTHWARD FROM FLORIDA TO INCLUDE GEORGIA AND SOUTH CAROLINA. FOR MAM - EXCESS WARMTH IN THE WEST IS EXPANDED EASTWARD TO INCLUDE WESTERN SECTIONS OF THE GREAT PLAINS. SUB-MEDIAN PRECIPITATION IS EXPANDED INTO GEORGIA FROM FLORIDA.

FOR AMJ - SUB-MEDIAN PRECIPITATION IS PREDICTED FOR THE SOUTHWEST INTO THE
CENTRAL GREAT PLAINS - BASED ON LA NINA COMPOSITES.
FOR JJA - ABOVE NORMAL TEMPERATURES ARE REMOVED FROM SOUTHWESTERN ALASKA.
FOR JFM 2001 - WESTERN WARMTH IS EXPANDED INTO THE NORTHERN AND CENTRAL GREAT
PLAINS - THE GREAT LAKES - THE MIDDLE ATLANTIC REGION AND THE NORTHEAST - IN
KEEPING WITH LONG TERM TRENDS.

FOR A DESCRIPTION OF THE STANDARD FORECAST TOOLS - THEIR SKILL -
AND THE FORECAST FORMAT PLEASE SEE OUR WEB PAGE
AT: [HTTP://WWW.CPC.NCEP.NOAA.GOV/PRODUCTS/PREDICTIONS/
MULTI-SEASON/13_SEASONAL_OUTLOOKS/TOOLS](http://www.cpc.ncep.noaa.gov/products/predictions/multi-season/13_seasonal_outlooks/tools)

NOTE - THESE CLIMATE OUTLOOKS ARE INTENDED FOR USE PRIOR TO THE START OF THEIR
VALID PERIODS. WITHIN ANY GIVEN VALID PERIOD OBSERVATIONS AND SHORT AND MEDIUM
RANGE FORECASTS SHOULD BE CONSULTED. ALSO - THIS SET OF OUTLOOKS WILL BE
SUPERSEDED BY THE ISSUANCE OF THE NEW SET NEXT MONTH ON THURSDAY FEB 17 2000.

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